



**Better
Faster
Cheaper
Safer
Smarter**



January 2013

GRAPHICS\BUREAU\TRANSPORTATION PLANNING\INTERMODAL POLICY DIVISION\
Tax Fund Efficiency Report_Michigan DOT Efficiencies and Innovations_150 copies at \$0.10/ each_1/13 bw



MDOT Efficiencies and Innovations

State fuel tax revenue has been declining since 2004. Annual revenue is down \$233 million compared to 2004, while the cost of doing business has increased. The state collects approximately the same amount of transportation revenue in 2012 as it did in 1998. In fiscal years 2011 and 2012, short-term solutions were used to enable the state to match federal funds. This ensured that Michigan received all the federal money available to it and none was returned to Washington for other states to use. MDOT has undertaken numerous efforts to operate more efficiently and use every available dollar in its budget for infrastructure.

However, we have fallen behind neighboring states; based on population, Michigan's transportation investment ranks last. For example, our transportation system is comparable in size to that of Ohio; but Michigan's investment in transportation is approximately \$1 billion less per year.

The lack of investment in Michigan's infrastructure plus increasing demands on the system will rapidly erase the good progress made on improving the condition of roadways.

- In 2013 approximately 83 percent of the pavement on MDOT's system is in good or fair condition.
- However, at the current level of investment, in as little as 5 years, less than one-half of the pavement that MDOT is responsible for will be in fair or good condition. Roughly 43 percent of our pavement will be in poor condition by 2020.

How has MDOT responded? 



ONE-TIME SAVINGS	
One time savings achieved by using Build America Bonds, restructuring Comprehensive Transportation Fund (CTF) Bonds, and conducting process improvement for MDOT activities.	\$71 Million
2011 SAVINGS	
By restructuring the organization, MDOT created savings in the State Trunkline Fund (STF), CTF, and Aeronautics Fund.	\$55 Million
2012 and 2013 SAVINGS	
Numerous efficiencies were enacted in 2012 and 2013, such as reducing snowplow speeds, use of e-sign technology, innovative maintenance practices, and partnerships with businesses and local governments.	\$26 Million
TOTAL SAVINGS	\$152 Million

MDOT has 27% fewer staff now than the last time the fuel tax was raised in 1997.

Efficiencies and Innovations

MDOT is also undertaking many other innovative measures, which produce cost savings.

INNOVATIONS

- E-sign (electronic signatures) are being used for construction documentation, saving up to three weeks of processing time per document and eliminating 7.4 million sheets of paper. Future savings will be significantly greater as more processes move to electronic signatures, and as other MDOT divisions and bureaus begin full implementation of e-sign. MDOT is only in the beginning stages of e-sign, and already expects to save \$4 million per year.
- Three e-construction pilot projects were conducted in which all hard copy paperwork was eliminated. Saving \$300,000 in staff time, waiting, reviewing, coping, and handling.
- The Metro Region set a goal to reduce the number of overdue final billings for projects between contractors and the department by 50 percent. They exceeded that goal, reducing overdue final billings 75%. Over the long term this can help reduce bid prices.
- The “Adopt-a-Welcome Center” Program provides enhanced visitor services without increasing operational costs to MDOT by allowing volunteer organizations to staff the facility and provide some maintenance services.
- Energy-efficient lighting was installed in five rest areas, and automatic soap dispensers and faucets were installed in seven rest areas, reducing energy use, materials, and water waste.
- Energy savings practices, such as programmable thermostats, limited use of lighting, closing overhead doors in cold weather, and turning off computers, have all cut down considerably on electric and gas usage.
- Reduced the number of permanent staff by using seasonal employees at MDOT maintenance garages to match current funding availability.
- Precast bridge elements are used to save time and money on bridge reconstruction projects. Time savings is estimated to be three weeks faster.
- An innovative staffing plan to employ six bridge maintenance crews between MDOT and several local road commissions. Joining forces allowed for three additional crews that were able to complete more preventive maintenance and minor bridge repairs.

NATIONAL RECOGNITION

MDOT is recognized by federal authorities and other state DOT’s as a national leader in many areas of transportation, including:

- Safety
 - Innovative Construction Contracting
 - Capital Preventive Maintenance
 - Asset Management
- Construction Quality Partnership Training
 - Road Quality Forecasting System
 - Trailway Development
 - Context Sensitive Solutions Process